

## Socio-Economics of the Dry Fish Processor in Digha Coast of West Bengal

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### ABSTRACT

*Dry fish is one of the important sources of the income and employment generation of the rural coastal people of West Bengal. This Study was conducted to analyse socio-economic conditions of the dry fish processor of Digha coast, West Bengal. The Study also evaluated their livelihood and social status for a period of seven months from September 2017 to April 2018. Data were collected in terms of education, income generation, gender, religion, Govt. help to words the dry fish industry, marital status, caste, age group, work experience, and family type of the selected dry fish processor. Survey question schedule was made for the collection of data. Among 30 dry fish processor interviewed, 16.6% were illiterate; 83.4% were primary level and above, 70% male and 30% female, 26.66% belongs to general; 30% OBC; 30% SC and remaining 13.33% were ST, 73.33% Hindu and remaining 26.66% Muslim, 70% had joint family and 30% had nuclear families, 23.33% were between 21 to 30 age group; 26.66% were 31 to 40; 40% 41 to 50 and remaining 10% were 51 to 60 age group. Income distribution showed significant inequality between this different social parameter. The present study suggested that there is a clear need to start a credit facility side-a-side insurance schemes to the fishers for sustainable development of this industry.*

**Key words:** Dry fish, Socio-Economics, Khuti, Sustainable development.

### INTRODUCTION

Fish and aquaculture sector is an important sector in the world for income and employment generation to coastal and rural people. A very rapid loss in quality can occur in the case of fish, after the catch, as it is an extremely perishable commodity<sup>3,5,1</sup>. Hence, the proven preservation method of drying is still being practised in India. Dried products are in high demand both within and outside the country and form a significant source of

protein-rich food in several forms. Fish drying is evolved from a subsistence occupation to a full-fledged flourishing business. Dried fish now caters to different sectors such as quality fish/prawns for human consumption, and low-value fishes for the preparation of fish feed as well as poultry feed. In India, consumption of dried fishes is about 32% of the total marine landings and about 17% of the total catch used for the production of dry fishes<sup>8</sup>.

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Being a state of rivers, bays and reservoirs with a high potential of aquatic resources, fisheries of West Bengal play an important role in the employment generation of rural coastal people. The state has three coastal districts. They are East Midnapore, South 24 Parganas, North 24 Parganas. Among these three districts East Midnapore and South 24 Parganas plays an important role in dry fish production of the state. The location where fish landing, as well as drying activity, are undertaken is known as Khuti<sup>7</sup>. In Khuti fishes are dried under natural sunlight in bamboo poles in the coastal areas. The major Khuties located a coastal West Bengal includes Digha mohana, Sankarpur, Jaldha, Junput, Mandarmoni, Petuaghat etc<sup>6</sup>. These khuties have produced 10152 tons dry fish during 2015-16<sup>2</sup>. In India about 78% of the total fish catch is consumed in fresh condition, 6% is used as dry fish and rest is used as frozen fish. Indian dry fish export contributed 8% of all form of fish exports and earned 754 crores during 2012-2013<sup>4</sup>. During 2014-15 and 2015-16 total dry fish production in South 24 Parganas district was 3259 MT and 2677 MT, and in case of Purba Medinipur district, it was 8786 MT and 7475 MT respectively<sup>2</sup>.

So Digha coast act as a very important factor by producing dry fishes in the local economy, employment generation, foreign exchange earnings, food security and livelihood of the local community. So, it is essential to study the socio economics of the dry fish processor who are the main pillar of this industry.

## MATERIAL AND METHODS

### 2.1 Sampling Frame

To assess the socio-economics of fish drying Digha Mohona khuti, Jaldah khuti and Junput khuti of Ramnagar-I and Desopran block from Contai sub-division was purposively selected as representative from the district of Purba Medinipur. A list of 150 families connected with fish drying who are living in the surrounding area of the selected Khutis were prepared, and thirty dry fish processor and dry fish processors were randomly selected for questionnaire and interview.

### 2.2 Questionnaires and Data Collection

The questionnaire was developed in a logical sequence of that the target group could answer chronologically. For this study, a combination of questionnaire, interview, Participatory Rural Appraisal (PRA) tool such as Focus Group Discussion (FGD) and cross-check interviews with key informants were used.

### 2.3 Data Collection

Secondary data were collected from the available sources. Primary data were collected in 2017 using pretested structured questionnaires and interview in local language and subsequently converted to English. Collected data were suitably categorized, tabulated for interpretations, generalizations and implications.

### 2.4 Analysis of Data

The collected data were scrutinized to eliminate possible errors and then analyzed using the statistical package SPSS 20.0 computer program (SPSS Inc. Chicago, Illinois, USA) and Microsoft Excel.

## RESULT AND DISCUSSION

### 3.1 Socio-economics of Junput Khuti

#### 3.1.1 Gender

From table 1 it can be seen that 80% of selected dry fish processor of Junput khuti were male, only 20% of dry fish processor were occupied by females. This data is about main bread earner in the family. There is no association between gender of the respondents and family annual income  $\{X^2 (3) = 5.833, p = 0.12\}$  with minimum expected count of 0.20. The strength of association is also weak ( $\Phi = 0.12$ ).

#### 3.1.2. Religion

From table 2 it can be seen that 80% of selected dry fish processor of Junput khuti were Hindu, only 20% of dry fish processor were Muslim. This data is about main bread earner in the family. There is no association between the religion of the respondents and family annual income  $\{X^2 (3) = 2.708, p = 0.439\}$  with minimum expected count of 0.20. The strength of association is also weak ( $\Phi = 0.439$ ).

### 3.1.3. Government help

From table 3 it can be seen that 40% of selected dry fish processor of Junput khuti were helped by Government, and 60% of dry fish processor didn't get any types of Government help. This data is about main bread earner in the family. There is no association between Govt. help to the respondents and family annual income  $\{X^2 (3) = 4.097, p= 0.251\}$  with minimum expected count of 0.40. The strength of association is also weak (Phi= 0.251).

### 3.1.4. Marital status

From table 4 it can be seen that 70% of selected dry fish processor of Junput khuti were married, and 30% of dry fish processor were unmarried. This data is about main bread earner in the family. There is no association between marital status the respondents and family annual income  $\{X^2 (3) = 4.444, p= 0.217\}$  with minimum expected count of 0.30. The strength of association is also weak (Phi= 0.217).

### 3.1.5. Caste

From table 5 it can be seen that 20% of selected dry fish processor of Junput khuti were general caste, 30% of dry fish processor were SC, 10% of the dry fish processor, were ST and 40% of dry fish processor were OBC. This data is about main bread earner in the family. There is no association between the caste of the respondents and family annual income  $\{X^2 (9) = 6.458, p= 0.693\}$  with minimum expected count of 0.10. The strength of association is also weak (Phi= 0.693).

### 3.1.6. Age group

From table 6 it can be seen that 10% of selected dry fish processor of Junput khuti were between 20-30 age group, 50% of selected dry fish processor were between 31-40 age group, 30% of selected dry fish processor were between 41-50 age group, 10% of selected dry fish processor were between 51-50 age group. This data is about main bread earner in the family. There is no association between the age group of the respondents and family annual income  $\{X^2 (9) = 11.667, p= 0.233\}$  with minimum expected count of 0.10.

The strength of association is also weak (Phi= 0.233).

### 3.1.7. Education

From table 7 it can be seen that 20% of selected dry fish processors of Junput khuti were illiterate, 40% of the selected dry fish processor has completed their education up to primary level, and 40% of the selected dry fish processor was completed their education 10<sup>th</sup> class or more. This data is about main bread earner in the family. There is no association between the education of the respondents and family annual income  $\{X^2 (6) = 5.833, p= 0.442\}$  with minimum expected count of 0.20. The strength of association is also weak (Phi= 0.442).

### 3.1.8. Work experience

From table 8 it can be seen that 20% of selected dry fish processors of Junput khuti had up to 10 years of work experience, 40% of selected dry fish processor had up to 10-20 years of work experience, 40% of selected dry fish processor had up to 20-30 years of work experience. This data is about main bread earner in the family. There is no association between the work experience of the respondents and family annual income  $\{X^2 (6) = 5.833, p= 0.442\}$  with minimum expected count of 0.20. The strength of association is also weak (Phi= 0.442).

### 3.1.9. Family type

From table 9 it can be seen that 60% of selected dry fish processors of Junput khuti had a joint family, whereas 40% of selected dry fish processor had a nuclear family. This data is about main bread earner in the family. There is no association between the family type of the respondents and family annual income  $\{X^2 (3) = 3.056, p= 0.383\}$  with minimum expected count of 0.40. The strength of association is also weak (Phi= 0.383).

## 3.2. Social parameters of Jaldha Khuti

### 3.2.1. Gender

From table 10 it can be seen that 70% of selected dry fish processor of Jaldha khuti were male, only 30% of dry fish processor were occupied by females. This data is about main bread earner in the family. There is no association between gender of the respondents

and family annual income  $\{X^2 (2) = 3.016, p= 0.221\}$  with minimum expected count of 0.60. The strength of association is also weak ( $\Phi= 0.221$ ).

### 3.2.2. Religion

From table 11 it can be seen that 80% of selected dry fish processor of Jaldha khuti were Hindu, only 20% of dry fish processor were Muslim. This data is about main bread earner in the family. There is no association between the religion of the respondents and family annual income  $\{X^2 (2) = 0.833, p= 0.659\}$  with minimum expected count of 0.40. The strength of association is also weak ( $\Phi= 0.659$ ).

### 3.2.3. Government help

From table 12 it can be seen that 50% of selected dry fish processor of Jaldha khuti were helped by Government, and 50% of dry fish processor didn't get any types of Government help. This data is about main bread earner in the family. There is no association between Govt. help to the respondents and family annual income  $\{X^2 (2) = 0.533, p= 0.766\}$  with minimum expected count of 1.0. The strength of association is also weak ( $\Phi= 0.766$ ).

### 3.2.4. Marital status

From table 13 it can be seen that 80% of selected dry fish processor of Jaldha khuti were married, and 20% of dry fish processor were unmarried. This data is about main bread earner in the family. There is no association between marital status the respondents and family annual income  $\{X^2 (2) = 0.833, p= 0.659\}$  with minimum expected count of 0.40. The strength of association is also weak ( $\Phi= 0.659$ ).

### 3.2.5. Caste

From table 14 it can be seen that 40% of selected dry fish processor of Jaldha khuti were general caste, 20% of dry fish processor were SC, 20% of the dry fish processor, were ST and 20% of dry fish processor were OBC. This data is about main bread earner in the family. There is no association between the caste of the respondents and family annual income  $\{X^2 (6) = 5.25, p= 0.512\}$  with

minimum expected count of 0.40. The strength of association is also weak ( $\Phi= 0.512$ ).

### 3.2.6. Age group

From table 15 it can be seen that 30% of selected dry fish processor of Jaldha khuti were between 20-30 age group, 10% of selected dry fish processor were between 31-40 age group, 40% of selected dry fish processor were between 41-50 age group, 20% of selected dry fish processor were between 51-60 age group. This data is about main bread earner in the family. There is no association between the age group of the respondents and family annual income  $\{X^2 (9) = 7.333, p= 0.291\}$  with minimum expected count of 0.20. The strength of association is also weak ( $\Phi= 0.291$ ).

### 3.2.7. Education

From table 16 it can be seen that 10% of selected dry fish processors of Jaldha khuti were illiterate, 60% of the selected dry fish processor has completed their education up to primary level, and 30% of the selected dry fish processor was completed their education 10<sup>th</sup> class or more. This data is about main bread earner in the family. There is no association between the education of the respondents and family annual income  $\{X^2 (4) = 8.222, p= 0.084\}$  with minimum expected count of 0.20. The strength of association is also weak ( $\Phi= 0.084$ ).

### 3.2.8. Work experience

From table 17 it can be seen that 20% of selected dry fish processors of Jaldha khuti had up to 10 years of work experience, 50% of selected dry fish processor had up to 10-20 years of work experience, 10% of selected dry fish processor had up to 20-30 years of work experience and 20% of selected dry fish processor had up to 30-40. This data is about main bread earner in the family. There is no association between the work experience of the respondents and family annual income  $\{X^2 (6) = 3.600, p= 0.731\}$  with minimum expected count of 0.20. The strength of association is also weak ( $\Phi= 0.731$ ).

### 3.2.9. Family type

From table 18 it can be seen that 30% of selected dry fish processors of Jaldha khuti

had a joint family, whereas 70% of selected dry fish processor had a nuclear family. This data is about main bread earner in the family. There is no association between the family type of the respondents and family annual income  $\{X^2 (2) = 0.635, p= 0.728\}$  with minimum expected count of 0.60. The strength of association is also weak ( $\Phi= 0.728$ ).

### 3.3. Social parameters of Digha Khuti

#### 3.3.1. Gender

From table 19 it can be seen that 60% of selected dry fish processor of Digha khuti were male, only 40% of dry fish processor were occupied by females. This data is about main bread earner in the family. There is no association between gender of the respondents and family annual income  $\{X^2 (3) = 0.972, p= 0.808\}$  with minimum expected count of 0.40. The strength of association is also weak ( $\Phi= 0.808$ ).

#### 3.3.2. Religion

From table 20 it can be seen that 60% of selected dry fish processor of Digha khuti were Hindu, only 40% of dry fish processor were Muslim. This data is about main bread earner in the family. There is no association between the religion of the respondents and family annual income  $\{X^2 (3) = 2.014, p= 0.57\}$  with minimum expected count of 0.40. The strength of association is also weak ( $\Phi= 0.57$ ).

#### 3.3.3. Government help

From table 21 it can be seen that 40% of selected dry fish processor of Digha khuti were helped by Government, and 60% of dry fish processor didn't get any types of Government help. This data is about main bread earner in the family. There is no association between Govt. help to the respondents and family annual income  $\{X^2 (3) = 6.875, p= 0.076\}$  with minimum expected count of 0.40. The strength of association is also weak ( $\Phi= 0.076$ ).

#### 3.3.4. Marital status

From table 22 it can be seen that 70% of selected dry fish processor of Digha khuti were married, and 30% of dry fish processor were unmarried. This data is about main bread

earner in the family. There is no association between marital status the respondents and family annual income  $\{X^2 (3) = 2.857, p= 0.414\}$  with minimum expected count of 0.30. The strength of association is also weak ( $\Phi= 0.414$ ).

#### 3.3.5. Caste

From table 23 it can be seen that 20% of selected dry fish processor of Digha khuti were general caste, 40% of dry fish processor were SC, 10% of the dry fish processor, were ST and 30% of dry fish processor were OBC. This data is about main bread earner in the family. There is no association between the caste of the respondents and family annual income  $\{X^2 (9) = 9.028, p= 0.435\}$  with minimum expected count of 0.10. The strength of association is also weak ( $\Phi= 0.435$ ).

#### 3.3.6. Age group

From table 24 it can be seen that 30% of selected dry fish processor of Digha khuti were between 20-30 age group, 20% of selected dry fish processor were between 31-40 age group, 50% of selected dry fish processor were between 41-50 age group. This data is about main bread earner in the family. There is no association between the age group of the respondents and family annual income  $\{X^2 (6) = 2.194, p= 0.901\}$  with minimum expected count of 0.20. The strength of association is also weak ( $\Phi= 0.901$ ).

#### 3.3.7. Education

From table 25 it can be seen that 20% of selected dry fish processors of Digha khuti were illiterate, 60% of the selected dry fish processor has completed their education up to primary level, and 20% of the selected dry fish processor was completed their education 10th class or more. This data is about main bread earner in the family. There is no association between the education of the respondents and family annual income  $\{X^2 (6) = 3.889, p= 0.692\}$  with minimum expected count of 0.20. The strength of association is also weak ( $\Phi= 0.692$ ).

#### 3.3.8. Work experience

From table 26 it can be seen that 50% of selected dry fish processor had up to 11-20 years of work experience, 30% of selected dry fish processor had up to 21-30 years of work experience and 20% of selected dry fish processor had up to 31-40. This data is about main bread earner in the family. There is no association between the work experience of the respondents and family annual income  $\{X^2(6) = 8.194, p= 0.224\}$  with minimum expected count of 0.20. The strength of association is also weak (Phi= 0.224).

### 3.3.9. Family type

From table 27 it can be seen that 30% of selected dry fish processors of Digha khuti had a joint family, whereas 70% of selected dry fish processor had a nuclear family. This data is about main bread earner in the family. There is no association between the family type of the respondents and family annual income  $\{X^2(3) = 5.833, p= 0.12\}$  with minimum expected count of 0.20. The strength of association is also weak (Phi= 0.12).

### Appendix

**Table 68: Distribution of Sex for the Selected Dry fish processor over 2017-18**

Sex \ Khuti	Junput	Jaldah	Digha	Total	% involved
Male	8	7	6	21	70
Female	2	3	4	9	30
Total	10	10	10	30	100

**Table 69: Distribution of Caste for the Selected Dry fish processor over 2017-18**

Caste \ Khuti	Junput	Jaldah	Digha	Total	% involved
SC	3	2	4	9	30.000
ST	1	2	1	4	13.333
OBC	4	2	3	9	30.000
GEN	2	4	2	8	26.667
Total	10	10	10	30	100.000

**Table 70: Distribution of Age group for the Selected Dry fish processor over 2017-18**

Age \ Khuti	Junput	Jaldah	Digha	Total	% involved
20-30 Yr.	1	3	3	7	23.333
31-40 Yr	5	1	2	8	26.667
41-50 Yr	3	4	5	12	40.000
51-60 Yr. or above	1	2	0	3	10.000
Total	10	10	10	30	100.000

**Table 71: Distribution of Religion for the Selected Dry fish processor over 2017-18**

Religion \ Khuti	Junput	Jaldah	Digha	Total	% involved
Hindu	8	8	6	22	73.333
Muslim	2	2	4	8	26.667
Total	10	10	10	30	100.000

Edn \ Khuti	Junput	Jaldah	Digha	Total	% involved
Illiterate	2	1	2	5	16.667
Primary	4	6	6	16	53.333
Class VIII Pass	4	3	1	8	26.667
10 <sup>th</sup> . Pass or more	0	0	1	1	3.333
Total	10	10	10	30	100.000

Family \ Khuti	Junput	Jaldah	Digha	Total	% involved
Nuclear	4	3	2	9	30
Joint	6	7	8	21	70
Total	10	10	10	30	100

Income \ Khuti	Junput	Jaldah	Digha	Total	% involved
1000-5000	3	2	2	7	23.333
5000-10000	4	5	3	12	40.000
10000-15000	2	3	4	9	30.000
15000-20000	1	0	1	2	6.667
Total	10	10	10	30	100.000

Income		Gender		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Male	Female				
1000-10000	Count	1	2	3	5.833 (3)	0.12	0.12
	% within Income	33.30%	66.70%	100.00%			
10000-20000	Count	4	0	4			
	% within Income	100.0%	0.00%	100.00%			
20000-30000	Count	2	0	2			
	% within Income	100.0%	0.00%	100.00%			
30000-40000	Count	1	0	1			
	% within Income	100.0%	0.00%	100.00%			

Income		Religion		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Hindu	Muslim				
1000-10000	Count	2	1	3	2.708 (3)	0.439	0.439
	% within Income	0.667	0.333	1			
10000-20000	Count	4	0	4			
	% within Income	1	0	1			
20000-30000	Count	1	1	2			
	% within Income	0.5	0.5	1			
30000-40000	Count	1	0	1			
	% within Income	1	0	1			

Income		Govt. help		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Yes	No				
1000-10000	Count	2	1	3	4.097 (3)	0.251	0.251
	% within Income	0.667	0.333	1			
10000- 20000	Count	1	3	4			
	% within Income	0.25	0.75	1			
20000-30000	Count	0	2	2			
	% within Income	0	1	1			
30000-40000	Count	1	0	1			
	% within Income	1	0	1			

Income		Marital status		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Married	Unmarried				
1000-10000	Count	2	1	3	4.444 (3)	0.217	0.217
	% within Income	0.667	0.333	1			
10000- 20000	Count	4	0	4			
	% within Income	1	0	1			
20000-30000	Count	1	1	2			
	% within Income	0.5	0.5	1			
30000-40000	Count	0	1	1			
	% within Income	0	1	1			



**Table 5: Dependency between Income and Caste of Junput khuti**

Income		Caste				Total	chi square value	Asymp. Sig. (2-sided)	Phi
		General	SC	ST	OBC				
1000-10000	Count	1	0	0	2	3	6.458 (9)	0.693	0.693
	% within Income	33.30%	0.00%	0.00%	66.70%	100.00%			
10000- 20000	Count	1	1	1	1	4			
	% within Income	25.00%	25.00%	25.00%	25.00%	100.00%			
20000-30000	Count	0	1	0	1	2			
	% within Income	0.00%	50.00%	0.00%	50.00%	100.00%			
30000-40000	Count	0	1	0	0	1			
	% within Income	0.00%	100.00%	0.00%	0.00%	100.00%			

**Table 6: Dependency between Income and Age group of Junput khuti**

Income		Age group				Total	chi square value	Asymp. Sig. (2-sided)	Phi
		20-30	31-40	41-50	51-60				
1000-10000	Count	0	3	0	0	3	11.66 7 (9)	0.233	0.233
	% within Income	0.00%	100.00%	0.00%	0.00%	100.00%			
10000- 20000	Count	0	1	2	1	4			
	% within Income	0.00%	25.00%	50.00%	25.00%	100.00%			
20000-30000	Count	1	1	0	0	2			
	% within Income	50.00%	50.00%	0.00%	0.00%	100.00%			
30000-40000	Count	0	0	1	0	1			
	% within Income	0.00%	0.00%	100.00%	0.00%	100.00%			

**Table 7: Dependency between Income and Education of Junput khuti**

Income		Education			Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Illiterate	Primary	10th				
1000-10000	Count	1	1	1	3	5.833 (6)	0.442	0.442
	% within Income	0.333	0.333	0.333	1			
10000- 20000	Count	0	3	1	4			
	% within Income	0	0.75	0.25	1			
20000-30000	Count	1	0	1	2			
	% within Income	0.5	0	0.5	1			
30000-40000	Count	0	0	1	1			
	% within Income	0	0	1	1			

**Table 8: Dependency between Income and Work experience of Junput khuti**

Income		Experience			Total	chi square value	Asymp. Sig. (2-sided)	Phi
		1-11	11-20	21-30				
1000-10000	Count	1	1	1	3	5.833 (6)	0.442	0.442
	% within Income	0.333	0.333	0.333	1			
10000- 20000	Count	0	1	3	4			
	% within Income	0	0.25	0.75	1			
20000-30000	Count	1	1	0	2			
	% within Income	0.5	0.5	0	1			
30000-40000	Count	0	1	0	1			
	% within Income	0	1	0	1			

**Table 9: Dependency between Income and Family type of Junput khuti**

Income		Family type		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Joint	Nuclear				
1000-10000	Count	2	1	3	3.056 (3)	0.383	0.383
	% within Income	66.70%	33.30%	100.00%			
10000- 20000	Count	2	2	4			
	% within Income	50.00%	50.00%	100.00%			
20000-30000	Count	2	0	2			
	% within Income	100.00%	0.00%	100.00%			
30000-40000	Count	0	1	1			
	% within Income	0.00%	100.00%	100.00%			

**Table 10: Dependency between Income and Gender type of Jaldah khuti**

Income		Gender		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Male	Female				
1000-10000	Count	2	0	2	3.016 (2)	0.221	0.221
	% within Income	100.00%	0.00%	100.00%			
10000-20000	Count	4	1	5			
	% within Income	80.00%	20.00%	100.00%			
20000-30000	Count	1	2	3			
	% within Income	33.30%	66.70%	100.00%			

Table 11: Dependency between Income and Region of Jaldah khuti							
Income		Religion		Total	Religion	Asymp. Sig. (2-sided)	Phi
		Hindu	Muslim	Hindu			
1000-10000	Count	2	0	2	0.833 (2)	0.659	0.659
	% within Income	100.00%	0.00%	100.00%			
10000-20000	Count	4	1	5			
	% within Income	80.00%	20.00%	100.00%			
20000-30000	Count	2	1	3			
	% within Income	66.70%	33.30%	100.00%			

Table 12: Dependency between Income and Govt. help of Jaldah khuti							
Income		Govt help		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Yes	No				
1000-10000	Count	1	1	2	0.533 (2)	0.766	0.766
	% within Income	50.00%	50.00%	100.00%			
10000-20000	Count	3	2	5			
	% within Income	60.00%	40.00%	100.00%			
20000-30000	Count	1	2	3			
	% within Income	33.30%	66.70%	100.00%			

Table 13: Dependency between Income and Marital status of Jaldah khuti							
Income		Marital status		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Married	Unmarried				
1000-10000	Count	2	0	2	0.833 (2)	0.659	0.659
	% within Income	100.00%	0.00%	100.00%			
10000-20000	Count	4	1	5			
	% within Income	80.00%	20.00%	100.00%			
20000-30000	Count	2	1	3			
	% within Income	66.70%	33.30%	100.00%			

**Table 14: Dependency between Income and Caste of Jaldah khuti**

Income		Caste				Total	chi square value	Asymp. Sig. (2-sided)	Phi
		General	SC	ST	OBC				
1000-10000	Count	1	0	1	0	2	5.25 (6)	0.512	0.512
	% within Income	50.00%	0.00%	50.00%	0.00%	100.00%			
10000-20000	Count	3	1	0	1	5			
	% within Income	60.00%	20.00%	0.00%	20.00%	100.00%			
20000-30000	Count	0	1	1	1	3			
	% within Income	0.00%	33.30%	33.30%	33.30%	100.00%			

**Table 15: Dependency between Income and Age group of Jaldah khuti**

Income		Age group				Total	chi square value	Asymp. Sig. (2-sided)	Phi
		20-30	31-40	41-50	51-60				
1000-10000	Count	2	0	0	0	2	7.333 (3)	0.291	0.291
	% within Income	100.00%	0.00%	0.00%	0.00%	100.00%			
10000-20000	Count	1	1	2	1	5			
	% within Income	20.00%	20.00%	40.00%	20.00%	100.00%			
20000-30000	Count	0	0	2	1	3			
	% within Income	0.00%	0.00%	66.70%	33.30%	100.00%			

**Table 16: Dependency between Income and Education of Jaldah khuti**

Income		Education			Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Illiterate	Primary	10th or more				
1000-10000	Count	0	0	2	2	8.222 (4)	0.084	0.084
	% within Income	0.00%	0.00%	100.00%	100.00%			
10000-20000	Count	0	4	1	5			
	% within Income	0.00%	80.00%	20.00%	100.00%			
20000-30000	Count	1	2	0	3			
	% within Income	33.30%	66.70%	0.00%	100.00%			

**Table 17: Dependency between Income and Year of experience of Jaldah khuti**

Income		Year of Experience				Total	chi square value	Asymp. Sig. (2-sided)	Phi
		01-10	11-20	21-30	31-40				
1000-10000	Count	0	2	0	0	2	3.600 (6)	0.731	0.731
	% within Income	0.00%	100.00%	0.00%	0.00%	100.00%			
10000-20000	Count	1	2	1	1	5			
	% within Income	20.00%	40.00%	20.00%	20.00%	100.00%			
20000-30000	Count	1	1	0	1	3			
	% within Income	33.30%	33.30%	0.00%	33.30%	100.00%			

**Table 18: Dependency between Income and Family type of Jaldah khuti**

Income		Family type		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Joint	Nuclear				
1000-10000	Count	1	1	2	0.635 (2)	0.728	0.728
	% within Income	50.00%	50.00%	100.00%			
10000-20000	Count	1	4	5			
	% within Income	20.00%	80.00%	100.00%			
20000-30000	Count	1	2	3			
	% within Income	33.30%	66.70%	100.00%			

**Table 19: Dependency between Income and gender of Digha khuti**

Income		Gender		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Male	Female				
1000-10000	Count	1	1	2	0.972 (3)	0.808	0.808
	% within Income	50.00%	50.00%	100.00%			
10000-20000	Count	2	1	3			
	% within Income	66.70%	33.30%	100.00%			
20000-30000	Count	2	2	4			
	% within Income	50.00%	50.00%	100.00%			
30000-40000	Count	1	0	1			
	% within Income	100.00%	0.00%	100.00%			

**Table 20: Dependency between Income and religion of Digha khuti**

Income		Religion		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Hindu	Muslim				
1000-10000	Count	1	1	2	2.014 (3)	0.57	0.57
	% within Income	50.00%	50.00%	100.00%			
10000-20000	Count	2	1	3			
	% within Income	66.70%	33.30%	100.00%			
20000-30000	Count	3	1	4			
	% within Income	75.00%	25.00%	100.00%			
30000-40000	Count	0	1	1			
	% within Income	0.00%	100.00%	100.00%			

**Table 21: Dependency between Income and Govt. help of Digha khuti**

Income		Govt. help		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Yes	No				
1000-10000	Count	0	2	2	6.875 (3)	0.076	0.076
	% within Income	0.00%	100.00%	100.00%			
10000-20000	Count	3	0	3			
	% within Income	100.00%	0.00%	100.00%			
20000-30000	Count	1	3	4			
	% within Income	25.00%	75.00%	100.00%			
30000-40000	Count	0	1	1			
	% within Income	0.00%	100.00%	100.00%			

**Table 22: Dependency between Income and Marital status of Digha khuti**

Income		Marital status		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Married	Unmarried				
1000-10000	Count	1	1	2	2.857 (3)	0.414	0.414
	% within Income	50.00%	50.00%	100.00%			
10000-20000	Count	3	0	3			
	% within Income	100.00%	0.00%	100.00%			
20000-30000	Count	2	2	4			
	% within Income	50.00%	50.00%	100.00%			
30000-40000	Count	1	0	1			
	% within Income	100.00%	0.00%	100.00%			

Income		Caste				Total	chi square value	Asymp. Sig. (2-sided)	Phi
		General	SC	ST	OBC				
	Count	0	1	0	1	2	9.028 (9)	0.435	0.435
	% within Income	0.00%	50.00%	0.00%	50.00%	100.00%			
1000-10000	Count	2	0	0	1	3			
	% within Income	66.70%	0.00%	0.00%	33.30%	100.00%			
10000-20000	Count	0	2	1	1	4			
	% within Income	0.00%	50.00%	25.00%	25.00%	100.00%			

Income		Age group			Total	chi square value	Asymp. Sig. (2-sided)	Phi
		20-30	31-40	41-50				
	Count	1	0	1	2	2.194 (6)	0.901	0.901
	% within Income	50.00%	0.00%	50.00%	100.00%			
1000-10000	Count	1	1	1	3			
	% within Income	33.30%	33.30%	33.30%	100.00%			
10000-20000	Count	1	1	2	4			
	% within Income	25.00%	25.00%	50.00%	100.00%			
20000-30000	Count	0	0	1	1			
	% within Income	0.00%	0.00%	100.00%	100.00%			

Income		Education			Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Illiterate	Primary	10th or more				
	Count	1	1	0	2	3.889 (6)	0.692	0.692
	% within Income	50.00%	50.00%	0.00%	100.00%			
1000-10000	Count	1	1	1	3			
	% within Income	33.30%	33.30%	33.30%	100.00%			
10000-20000	Count	0	3	1	4			
	% within Income	0.00%	75.00%	25.00%	100.00%			
20000-30000	Count	0	1	0	1			
	% within Income	0.00%	100.00%	0.00%	100.00%			

**Table 26: Dependency between Income and experience of Digha khuti**

Income		Year of Experience			Total	chi square value	Asymp. Sig. (2-sided)	Phi
		11-20	21-30	31-40				
1000-10000	Count	2	0	0	2	8.194 (6)	0.224	0.224
	% within Income	100.00%	0.00%	0.00%	100.00%			
10000-20000	Count	1	2	0	3			
	% within Income	33.30%	66.70%	0.00%	100.00%			
20000-30000	Count	2	1	1	4			
	% within Income	50.00%	25.00%	25.00%	100.00%			
30000-40000	Count	0	0	1	1			
	% within Income	0.00%	0.00%	100.00%	100.00%			

**Table 27: Dependency between Income and family type of Digha khuti**

Income		Family type		Total	chi square value	Asymp. Sig. (2-sided)	Phi
		Joint	Nuclear				
1000-10000	Count	2	0	2	5.833 (3)	0.12	0.12
	% within Income	100.00%	0.00%	100.00%			
10000-20000	Count	2	1	3			
	% within Income	66.70%	33.30%	100.00%			
20000-30000	Count	4	0	4			
	% within Income	100.00%	0.00%	100.00%			
30000-40000	Count	0	1	1			
	% within Income	0.00%	100.00%	100.00%			

### CONCLUSION

The implication of this study is that the socio-economic conditions of dry fish processor were not satisfactory. They were deprived of many amenities. The study concluded that the dry fish industry has a potentiality for better profits and employment generation. The significant intervention suggested in the study area that low-cost solar dryer device may be used where the government can take the major role. For the benefit of this industry as per Kishan mandi, some new sort of organization for marketing may be introduced to standardize the price fluctuation and minimize the role of middleman in this sector. With a

synergistic effect of the above clauses obviously make a turn of the fish drying towards the prosperity of both the industry and its allied community in the near future for meeting up the protein security of the underprivileged humanity of the country.

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